

Cost Effectiveness of the Instrumentalism in Occupational Therapy (IOT) Conceptual Model as a Guide for Intervention with Adolescents with Emotional and Behavioral Disorders (EBD)

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Abstract

The purpose of this paper was to demonstrate the cost-effectiveness of using the Instrumentalism in Occupational Therapy (IOT) conceptual practice model as a guide for intervention to assist teenagers with emotional and behavioral disorders (EBD) transition successfully into adulthood. The cost effectiveness analysis was based on a project involving 15 teenagers treated by the first author and a colleague in a Day Treatment Center in a small town in northeast Pennsylvania. The analysis revealed that the cost of intervention per positive effect realized per teenager was US\$162.88. Further research is indicated to determine how this effect translates into monetary benefits.

Keywords: cost-effectiveness, Instrumentalism, adolescence, emotional and behavioral disorders, Cognitive-Behavioral Therapy.

Introduction

Adolescence is an age of transition in which an individual leaves childhood and prepares to enter adulthood (Bruce & Borg, 1993). While many adolescents make the transition without significant difficulties (Haiman, Lambert, & Rodrigues, 2005), others find adolescence to be a stressful and challenging phase of development. Even well adjusted adolescents experience the tasks of this developmental stage as difficult (Ikiugu, 2007; Ikiugu & Ciaravino, 2006). The strain of adolescence likely increases the susceptibility to what developmental theorists call internalizing problems such as depression, anxiety, and withdrawal, as well as externalizing problems, such as aggressiveness and delinquent behavior (Ronnlund & Karlsson, 2006). According to Eckstein, Rasmussen, and Wittschen (1999), the transition into adulthood may cause instability in an adolescent's life that may result in insecurity, confusion, alienation, and identity problems. For adolescents who have emotional or behavioral disturbances, making this transition into adulthood may be especially challenging (Ikiugu & Ciaravino).

The normative tasks of adolescence include developing an identity, disengaging from the family, and being included in peer groups (Patterson & McCubbin, 1987), yet it also includes creating a healthy sexual identification, planning for future work and relationship endeavors, and developing a moral value system (Malekoff, 2004). According to Hauser and Greene (1991), when the individual transitions from adolescence to young adulthood, he/she: forms an initial adult identity and develops a value system, forms relational commitments, and makes vocational commitments. White, Labouvie, and Paradaratsakis (2005) indicated that the adolescent must master the tasks of identity formation and establishment of mature relationships for the successful transition into emerging adulthood; however, problems that prevent accomplishment of tasks at this stage include drug abuse, which is especially problematic for youth transitioning from high school to college. White et al. suggested that changed roles, socialization patterns, and decreased family and social control due to decreased proximity to family members are factors that are linked to substance use in college. The authors of the present paper suggest that the IOT model can offer an effective guide to intervention aimed at preventing such problems of transition by providing adolescents with a mission in life to which they can focus rather than using substance abuse.

Further review of the literature by White et al. (2005) revealed that alcohol and marijuana use were not related to college status; rather, college-bound adolescents used marijuana and cigarettes less than non-college bound adolescents and reported fewer incidences of marijuana and alcohol related problems. Additionally, those who left high school but did not go to college tended to have more alcohol-related problems. College status was found to be a predictor of both alcohol and marijuana use patterns (White et al.). It appears that transitioning from high school to college increases the risk of alcohol related problems but not use of other substances, whereas dropping out of high school placed the adolescents at highest risk of alcohol and other substance related problems. College seemed to insulate participants particularly from using marijuana and cigarettes, which suggested the need for prevention/cessation programs for non-college bound students to prevent these problems. IOT might be well placed to accomplish this objective by focusing adolescents on a vision of adult roles which would decrease the likelihood of dropping out of high school and increase the likelihood of going to college or other tertiary institutions. This is particularly crucial since as White et al. point out, there are few prevention programs aimed at intervention in this developmental stage outside of college campuses.

Since adolescents with emotional and behavioral disorders (EBD) are at a higher risk than their typical peers for experiencing problems during the transition into adulthood (Ellisckson, Saner, & McGuigan, 1997), there is a justified need to develop particular programming to address their special needs. Specifically, there is a need to provide comprehensive and integrative services for adolescents with EBD to facilitate their successful transition into adulthood (Armstrong, Dedrick, & Greenbaum, 2003). As the distinct changes associated with adolescence introduce a set of stressors and strains, there are unique opportunities for intervention (Sherrod, Haggerty, & Featherman, 1993).

Review of the literature revealed that there are several interventions that have been proven effective in the treatment of various problems of adolescence, such as anxiety disorders, depression, eating disorders, disruptive behavior disorders, health risk behaviors, and multiple problems of adolescence (Roberts, Lazicki-Puddy, Puddy, & Johnson, 2003); however, specific programs designed for assisting adolescents to make the developmental transition to adulthood are limited. Roberts et al. investigated the efficacy of treatments of various conditions and noted that "Studies of clinical effectiveness in adolescent psychotherapy are limited" (p. 1178). They found treatments carried out in the clinical settings to be more effective than those conducted in school settings. Furthermore, they found counseling to be more effective than psychoeducation.

Particularly, Roberts et al. (2003) found Cognitive Behavioral Therapy (CBT) to be effective in the treatment of anxiety, and obsessive compulsive disorder (OCD). Specific interventions included cognitive restructuring which is comprised of problem-solving, self-monitoring, and self instruction. Additionally, Roberts et al. reported that CBT is utilized in treating depression and posttraumatic stress disorder (PTSD), as is cognitive restructuring in treating PTSD. Individual therapy, family therapy, and education are used to treat bulimia nervosa, and CBT has been shown to help with dietary restraint and improve attitudes about weight. Behavioral strategies such as modeling, reinforcement, and systematic desensitization have been found to be effective in treating phobias and disruptive behavioral disorders.

Roberts et al. (2003) reported that multisystemic therapy (MST) is a comprehensive approach that addresses problems of adolescents with multiple problems. MST addresses issues related to the adolescent's life at home, in the community, and in the school. Factors within the adolescent's family, peer, school, and social networks which are associated with problem areas are taken into account during the intervention (Henggeler & Sheidow, 2003). Thus, MST is more inclusive and focuses on the adolescent's world more holistically. This is of particular interest as adolescent problems rarely present as single isolated issues. As Roberts et al. state: "The majority of treatment outcome research has been conducted on single disorders, but as seen in everyday practice, the majority of psychopathology occurs

in the presence of other conditions in addition to family, peers, and other psychosocial stressors” (p. 1185). IOT may be considered to be similar to MST, except that it does not particularly focus on the home and family. It differs from MST and many other approaches because it focuses on helping the adolescent restructure his/her life in general rather than concentrating on specific problems.

The IOT is also comparable to the Functional Family Therapy (FFT) approach which comprises of 5 phases: 1) Engagement – identifying factors that would prevent risky consequences; 2) Motivation – the adolescent and family become committed to creating lasting change; 3) Assessment – identifying relationships between the individual, family, and community, and social service factors that may be included in change strategies; 4) Behavior change – initiating strategies to facilitate actual change; and 5) Generalization (Roberts et al., 2003). FFT compares with the phases of IOT guided therapy, which are belief establishment, action, and consequence appraisal (Ikiugu, 2004b, 2004c, 2007). However, Roberts, et al. infer that “adolescent psychotherapists need to be involved in the clinical research to evaluate effectiveness of approaches not yet fully supported” (p. 1189). IOT falls in this category. The challenge is now to conduct further research to demonstrate the clinical effectiveness of IOT.

Ikiugu and Ciaravino (2006) argued that Instrumentalism in Occupational Therapy (IOT) is well suited to help adolescents with EBD manage the tasks of adolescence, thereby facilitating their successful progression into adulthood. As mentioned earlier, IOT is in many ways similar to MST. However, since it is based on the occupational therapy perspective, it has a unique focus on *doing*, and it aims to assist the adolescent reorganize his/her life in general (Ikiugu & Ciaravino). Specifically, it's focus is on assisting the client develop a life mission statement and develop a strategy to modify occupational performance as needed to participate effectively in the family, school, work, social, and community settings in order to achieve the stated mission. Further, this conceptual model endeavors to help the adolescent negotiate the tasks of thinking about future education and work roles, establish mature relationships, and establish self-identify (Ikiugu & Ciaravino, 2006).

The purpose of the present paper is to demonstrate the cost-effectiveness of IOT as a guide to therapeutic intervention to assist individuals in the adolescent developmental stage transition more successfully into adulthood. Specifically, the IOT conceptual model will be outlined including a step-by-step description of the therapeutic protocol based on the model's guidelines. Further, the use of IOT as a therapeutic guide for intervention for adolescents with EBD will be described, and the relationship of IOT to other approaches used to treat adolescents with EBD will be discussed. Finally, the cost-effective analysis of the model will be completed based on the preliminary findings by Ikiugu and Ciaravino (2006) in their pilot study.

Description of the Instrumentalism in Occupational Therapy Conceptual Model

Instrumentalism in Occupational Therapy (IOT) was developed as a result of a search for a method of practicing occupational therapy that was authentic. The first author had observed (his observations were confirmed by others in occupational therapy literature) that occupational therapists often seemed to resemble physical therapists (when working with clients with physical disabilities) or social workers (when working in mental health) in practice (Ikiugu, 2001; Ikiugu & Rosso, 2003; Ikiugu & Schultz, 2006). This loss of identity was confirmed by the fact that few occupational therapists chose to practice in psychosocial settings although the profession actually originated from mental health (Ikiugu, 2004a; Ikiugu & Rosso, 2003). He argued that this loss of identity could be alleviated by identifying the philosophical basis of the profession. In his subsequent research, he reviewed and analyzed historical occupational therapy literature to determine the profession's self-definition by explicating its narrative genres (Detweiler & Peyton, 1999). He used Bakhtin's method of identifying and analyzing the profession's time-periods (referred to as chronotopes). This investigation led to the conclusion that consistent with what others had argued (Breines, 1986; Cutchin, 2004; Wilcock, 1998), there was

evidence that pragmatism was the philosophical foundation of occupational therapy (Ikiugu, 2001; Ikiugu & Schultz, 2006). The philosophical discourses of William James and John Dewey were found to be particularly instructive in helping occupational therapists conceptually understand their practice. He created IOT as an attempt to offer a conceptual model of practice that was consistent with the philosophical principles of pragmatism in order to provide a way of doing occupational therapy that was conceptually consistent with the philosophical underpinnings of the profession and therefore authentic. It is therefore essential that the reader understand the basic propositions of pragmatism in order to comprehend the arguments of IOT.

Pragmatism was founded by Charles Sanders Peirce based on the primary proposition that belief is a rule for action (Peirce, 1955). According to Peirce, the mind has a need to dispel doubt and establish belief. When one has a belief, he/she acts in a manner that is consistent with that belief. For example, if you believe that the object in front of you is a chair, you are likely to attempt to sit on it. If however the consequences of your action, based on the belief that the object in front of you is a chair, are different from what was expected, e.g., if in an attempt to sit down you fall through the supposed object, there is a sense of doubt in the mind. You then act to dispel the sense of doubt and re-establish belief (for instance by investigating the phenomenon more closely in order to determine what it is that you thought was a chair) which is the preferred state of the mind. According to Peirce, this is the basis of all human action, including scientific inquiry. We act in order to verify our beliefs in the laboratory of experience. Furthermore, as one repeats certain actions that are consistent with a particular belief, a habit is formed.

William James, another influential pragmatist further developed the idea of habit formation as a basis of efficacious functioning in our environment (James, 1977). He argued that habits are formed by etching within the neurons traces of human experiences. He postulated that habits are so important that they actually determine the well-being of entire societies. He therefore proposed that we should pay close attention to the habits that we form. Furthermore, habits are not formed in isolation, but rather in the context of other habits. For instance, if you want to quit smoking, you cannot succeed by focusing on the behavior of smoking alone. You need to stop all related behaviors, for instance visiting bars and other environments where smoking and activities that encourage smoking, such as drinking occur. You may even have to alter your socialization patterns so that you make new friends who do not smoke and keep away from those that smoke, at least until you have successfully quit. Furthermore, the new habit patterns that one wishes to form must be nurtured carefully, because a moment of weakness could lead to undoing what may have taken a long time to cultivate. For instance, it takes only one puff from a cigarette for someone who has almost succeeded in quitting smoking to revert to being a full-pledged smoker. Habit formation has always been a fundamental part of occupational therapy practice and is emphasized in the IOT model (Ikiugu, 2004c, 2007; Kilehofner, 2002).

Furthermore, James (1977, 1981; see also McDermott, 1977) extended Peirce's idea of belief as a rule for action by arguing that human beings are not apart from nature, but are part of nature. This idea was also influenced by the theory of evolution which was influential in the development of the philosophy of pragmatism as indicated by Peirce's (1955) reverence of Charles Darwin, whom he thought was the greatest intellect of his time. Similarly, James (1977) expressed his view that Darwin's ideas are a given and used them to support his theory of habit formation and human instincts. Therefore, according to James, the human mind is nothing more than a tool that the human being uses by acting on his/her beliefs to solve environmental problems that pose a challenge to comfortable existence. This notion was used by John Dewey (1996, 1981) to develop his doctrine of instrumentalism. By instrumentalism is meant use of the mind, including its products such as social and cultural institutions, and theories, to solve problems and fashion the environment so that it becomes "home" for human beings. This was the notion that the author of the IOT thought was most applicable to occupational therapy and which was operationalized in the model for application in clinical practice.

The idea of instrumentalism (that the human mind is a tool like any other that human beings use to solve environmental problems and shape the environment to support human survival) implied that individuals can be taught to use their minds more efficiently to respond to challenges in their environment through appropriate choice and performance of daily occupations in order to achieve valued goals just like they can be taught to use other tools, such as computers or hammers. Therefore, the author conceptualized the IOT as a model designed to operationalize the construct of instrumentalism. In this perspective, the role of the occupational therapist was seen as that of teaching clients to use their minds more effectively by identifying what they want to achieve in life (desired consequences), identifying beliefs that are consistent or inconsistent with those consequences, changing beliefs that are inconsistent with desired outcomes and substituting them with more consistent ones, and committing to act through occupational performance in accordance with the newly established set of beliefs until habits that are consistent with one's goals in life are formed (Ikiugu, 2004b, 2004c).

The model was conceptualized to consist of three phases (Ikiugu, 2004 b): a) Belief establishment – The client is guided to identify beliefs that support (are adaptive) or impede (are maladaptive) actions consistent with desired life goals, and to develop or establish those that may be more supportive of those goals (are adaptive); b) Action phase – The client is encouraged to identify occupations that are consistent with the more adaptive beliefs whose regular performance would lead to achievement of desired goals in life, and to commit to regular participation in those occupations. Occupation is used in the IOT model as defined in occupational therapy literature to refer to “doing” those things that one wants, needs, or is required to do in his or her everyday life in order to participate effectively in life (American Occupational Therapy Association, [AOTA], 2002; Law et al., 2002). Such occupations can be classified into three categories; self maintenance (occupations that one needs to do in order to survive and live with dignity, such as toileting, bathing, dressing, feeding oneself, etc.), productivity (occupations that one has to do to contribute to the welfare of one's community and/or earning a living such as paid work, volunteering, taking care of others, home management, etc.), and leisure pursuits (occupations that one does for pleasure such as reading for recreation, watching movies, playing sports, going out with friends, etc.). c) Consequence Appraisal phase – This refers to regular evaluation of consequences of participation in occupations in order to determine if one's actions are consistent with progress towards life goals. The three phases are illustrated in figure 1 below.

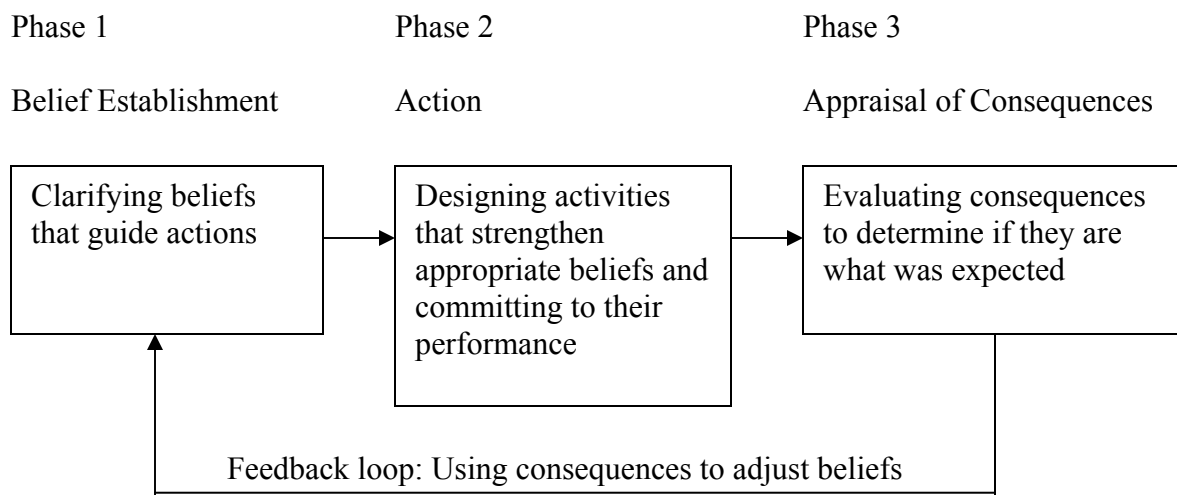


Figure 1. Adapted from, “Instrumentalism in occupational therapy: A theoretical core for the pragmatic conceptual model of practice”, in M.N. Ikiugu, *International Journal of Psychosocial Rehabilitation*, 8, p. 151. Copyright, 2004 by the Hampstead Psychological Associates, Ltd.

The above three phases are clinically applied through the following steps, guided by an instrument (Assessment and Intervention Instrument for Instrumentalism in Occupational Therapy [AIIOT]) that was developed for use with the model (Ikiugu, 2004c, see appendix A): I) Establishing a personal mission statement. The statement should incorporate participation in the following four areas of the client's life – family, work/school, socialization, and community. II) Identifying occupations performed in a specified period of time (e.g. four days) prior to the day of assessment using the Daily Occupational Inventories (DOIs, see appendix B). To complete the instrument, the individual being assessed enters in the inventory occupations in which he/she is engaged every hour from 6:00 am to 12:00 midnight every day for the specified number of days. Use of this instrument is based on the hypothesis derived from chaos/complexity/dynamical systems theory that the occupational human being is a complex, dynamical, adaptive system (Ikiugu, 2004b, Ikiugu & Rosso, 2005). The author of the IOT model proposed that chaos/complexity/dynamical systems theory is an improved version of the theory of evolution. Therefore, since the theory of evolution significantly informed the conceptual development of occupational therapy through the influence of the philosophy of pragmatism, complexity theory (an improved explanatory version of the theory of evolution) should be the primary theoretical framework of occupational therapy.

One of the constructs borrowed from chaos theory that was postulated to be useful in occupational therapy was fractality (Ikiugu, 2007a; Ikiugu & Rosso, 2005). This is the notion that a trajectory of a complex system consists of self-similar patterns. For instance, a person's occupational life examined over time would reveal self-similar performance patterns (e.g., giving up every time when faced with a challenge, or being engaged in certain types of occupations at a certain time on a certain day every week). It was postulated that documentation of occupations performed over a specified period of time would reveal patterns of performance within that time period and give the therapist and indication as to whether those patterns are adaptive or maladaptive. Ikiugu and Rosso (2005) developed an algorithm ($P_t = \sum P_i = \sum [F \times PI]$) for use in an Occupational Performance Calculation Guide (OPCG), where P_t =Total performance score, P_i =Performance score for each of the five occupations used to calculate the score, which is the product of the frequency with which the occupation is performed and the performance index, F =The frequency of performance of each of the occupations as indicated in the number of entries in the DOI, and PI =Performance Index for each of the top 5 occupations ranked in order of their importance in helping the person achieve the stated personal mission in life ($I=5$ for occupation ranked number 1 in importance, 4 for number 2, 3 for number 3, 2 for number 4, and 1 for number 5). The algorithm allows calculation of daily performance scores that could be graphed to indicate performance patterns or compared mathematically to determine an individual's progress in the frequency of participation in occupations perceived to be important for achievement of personal mission in life.

Occupations in each of the four areas of the mission statement (2 each for participation in family, work/school, socialization, and community respectively, for a total of 8 occupations) whose regular performance would lead to achievement of the stated personal mission in life are also identified. III) Rating self on 4 scales (each scale anchored at 1 and 4) – frequency, perceived adequacy, satisfaction, and belief about ability to perform each of the 8 occupations identified using the AIIOT with desired frequency and adequacy. IV) Establishing reasonable, understandable, measurable, behavioral, and attainable goals to facilitate satisfactory performance of each of the 4 occupations whose satisfaction with performance is rated at less than perfect. V) Committing to regular performance of the occupations related to established goals both during intervention sessions and in the client's daily life in between sessions. VI) Reassessment of performance by rating self on the 4 scales (frequency, adequacy, satisfaction, and belief) to determine the extent to which the established goals are being met. The 6 steps may be classified under each of the three phases of the IOT model as follows: Phase 1 – Belief establishment (Steps I, II, and III); Phase 2 - Action (Steps IV and V); and Phase 3 – Consequence appraisal (Step VI).

Application of IOT Guidelines in a Program to Assist Adolescents with EBD Transition into Adulthood

The IOT conceptual model was clinically tested in a pilot study involving teenagers attending a Day Treatment Center in a small town in northeast Pennsylvania (Ikiugu & Ciaravino, 2006). The adolescents ranged in age from 13 to 19 years, and they were referred to the Day Treatment Center either by the teachers or by the Court system for therapy due to drug problems, trouble with the law (e.g. involvement in physical violence), or other emotional and behavioral problems. Because some of the participants in the study were 18 and 19 years old, they will subsequently be referred to as *teenagers* rather than *adolescents* in this paper from this point on. Specific formal EBD diagnoses of the teenagers were not available to the investigators. Both the investigators were licensed occupational therapists at the time of the study. The first author holds a master's degree in counseling psychology in addition to a doctorate in occupational therapy and has practiced counseling for about five years. The co-investigator at the time of the pilot project was also a licensed clinical psychologist in addition to occupational therapy credentials. In this pilot project, the program was conducted as follows:

- 1) **Assessment:** Assessment instruments (the AIIIOT and DOI) were administered. Other assessment instruments used were the Canadian Occupational Performance Measure (COPM) which is used to guide the client to identify occupations that he wants, needs, or is required to do and to identify performance issues associated with those occupations, the Allen Cognitive Level Screen (ACLS) test, and phenomenological interviews. The COPM was crucial to identifying changes in occupational performance patterns. The phenomenological interviews were important for helping identify the teenagers' visualization of their desired future as adults and clarity of actions needed in the present to increase the likelihood of realizing that future. During the interviews, the teenagers were requested to state how they imagined their lives to be 10 years from the time of the interview, including the kind of work they would be doing, friends with whom they saw themselves socializing, whether or not they had a family and what kind of family, etc. They were also requested to explain what they were doing or could do at the present time in order to achieve that visualized future. The interviews were rated on a scale ranging from zero to 4 with regard to how clear the visualized future was, and clarity of the verbalized plan to achieve that future.

The ACLS was for research purposes only and will not be described in this paper since it is not central to clinical application of IOT. The AIIIOT and DOI have already been described above, and samples of completed instruments are shown in appendixes A and B. The AIIIOT takes about 1 hour 15 minutes to administer (1 hour to establish a personal mission statement and identify occupations whose performance would lead to achievement of that mission, and 15 minutes for self rating on the 4 scales and establishment of goals). The instruments can be administered in a group setting. The DOI takes approximately 20 minutes to complete every day. A 4 day inventory would take about 80 minutes to complete. It takes the occupational therapist about 15 minutes (depending on how many days the inventories were completed) to generate a list of occupations in which the client engaged over the specified period of time, classify them into categories of occupational performance as defined in the American Occupational Therapy Association's (2002) practice framework (Activities of Daily Living [ADLs], Instrumental Activities of Daily Living [IADLs], Education, Work, Play, Leisure, and Social Participation), tally the frequency with which each occupation was entered in the inventories, request the client to rank the occupations in the list in order of importance in helping him/her achieve the stated mission in life, and calculate the client's occupational performance score. Therefore, client assessment using the IOT guidelines takes about 2.8 to 3.5 hours, depending on the number of days that the client completes the DOIs.

- 2) Goal setting: Based on self ratings on the AIIIOT, individual goals were established for each teenager in collaboration with him/her. A short term goal (to be achieved in no more than 4 weeks) was set for each of the 8 occupations identified in the AIIIOT assessment whose rating of satisfaction was less than 4. Establishing goals took approximately 10 minutes for each client.
- 3) Intervention: Based on the postulations of developmental theorists who argue that adolescence is a stage in which individuals learn to develop personal identity and mature relationships among other things (Gay, Williams, & Flagg-Williams, 1997; Roisman et al., 2004; Schiller, 1998; Shulman & Ben-Artzi, 2003), it may be beneficial to use group interventions to facilitate interaction with peers leading to learning of mature socialization behaviors. Therefore, in the program by Ikiugu and Ciaravino (2006), the group intervention format was used. Individual group participant's (teenagers in the program) goals were used to develop a group protocol for each session based on the guidelines by Cole (2005) (see appendix C for an example of a group protocol used in one of the sessions). The goal that was common to most teenagers was used to establish the protocol for the first session, the next most popular goal for the second session, and so forth until all participants' goals were addressed. Group sessions were conducted once a week for 1 hour each. Each session consisted of explaining to participants the purpose of the group, describing the activities (occupations) in which participants would be engaged during the group session (examples of group occupations included creating a poster to teach younger elementary students the dangers of drug abuse, creating a collage depicting what each teenager could do to facilitate family participation in leisure occupations, how to go about searching and preparing for a career, etc.), participation in the group activity (occupation), processing of participants' experiences while engaging in the group activity, and discussion about how they would apply what was learned in the group to their lives in general.

Depending on the number of participants in the group and how varied group members' goals are, it may take between 5 and 12 weeks to address all participants' short term goals. Therefore, group interventions may take between 5 and 12 hours. According to the investigators' experience, 8 teenagers constituted the optimum number of participants with whom they could intervene effectively. Less than 8 participants would work well but more than that may be challenging especially when dealing with teenagers with significant emotional challenges. It is recommended that clients be seen individually as well, in order to reinforce lessons learned during the group sessions. However, due to time limitations, individual sessions were not conducted during this pilot test of IOT guidelines, except for assessment.

- 4) Reassessment: Ideally, clients should be re-assessed every week or 2 weeks. However, due to time limitations, the investigators in this pilot project were not able to assess clients frequently. Instead, DOI, COPM, and AIIIOT instruments, and the phenomenological interviews were administered to every teenager after the 6 week group interventions to determine any progress attained. Pre-test scores were subtracted from post-test scores to determine change in visualization of future and actions needed to achieve that future and also change in occupational performance patterns.

Relationship of IOT to other interventions used to treat adolescents with EBD

The 1997 re-authorization of the Individuals with Disabilities Education Act (IDEA) required that students (including teenagers) with significant behavioral difficulties be provided assistance (Waguespack, Vaccaro, & Continere, 2006). This requirement called for development of methods of assessing their function. Functional Behavioral Analysis (FBA) strategies were developed to address this need. The behavioral analysis emphasizes identification of problem behaviors, assessment of antecedents

to those behaviors (answering the question of why problem behavior is occurring), and development and implementation of appropriate interventions. The specific steps of FBA include “(a) Information gathering, (b) hypothesis formation, and (c) hypothesis testing” (p. 464). Consistent with FBA, IOT is an individualized intervention that also emphasizes thorough information gathering as a basis for intervention planning. However, the model does not focus on specific problem behaviors. Rather, information gathering and subsequent intervention planning addresses the broader issue of the teenager’s vision of him/herself in the future while acknowledging that there is a significant discrepancy between the visualized future and present circumstances.

Also, Cognitive Behavioral Therapy (CBT) principles have been found to be the most effective as a guide to interventions to address various psychosocial issues of teenagers, from anxiety and obsessive Compulsive Disorders to substance abuse problems (Gosch, Flannery-Schroeder, Mauro, & Compton, 2006; Roberts, et al., 2003). Cognitive-Behavioral Therapy strategies involve identifying distorted cognitions that lead to maladaptive behaviors, disputing those cognitions through carefully designed experiments where maladaptive beliefs are challenged, and providing the client with experiences to help increase his/her sense of efficacy (Bandura, 1977, 1986; Ellis, 1962; McGinn, 1997; Patterson, 1980).

Instrumentalism in Occupational Therapy has similarities to CBT approaches. For instance, like CBT, IOT guided intervention incorporates both the cognitive (visualization of one’s desired future) and behavioral (performance of occupations consistent with visualized future) strategies. Similarly, just as therapy based on Bandura’s social learning theory emphasizes establishment of the “sense of self-efficacy” by increasing “perceived self-efficacy” and “belief” in efficacious functioning and coping through “performance accomplishments” (Gosch et al., 2006, p. 250), IOT guided assessment evaluates the client’s belief in ability to perform occupations crucial to attainment of life mission with satisfactory adequacy (where adequacy is defined as performance with efficiency and effectiveness) and frequency, and intervention involves presenting the client with opportunities to perform desired occupations so as to experience a sense of accomplishment.

Other intervention strategies used with teenagers that are conceptually similar to IOT include Multisystemic Therapy (MST) which is a comprehensive approach and like IOT focuses on the teenager’s world holistically (including the family, peers, school, and broader community participation contexts), and Functional Family Therapy (FFT) whose primary goal is to improve family communications and supportiveness and in the process decrease the negativity within the family system (Roberts et al., 2003). However, IOT is unique in comparison to all the above therapeutic approaches in that it is an occupation-based intervention. Therefore, its emphasis is on enhancement of participation in daily occupations that the teenager wants, needs, or is expected to perform in order to function effectively according to cultural and developmental stage expectations. Furthermore, rather than focusing on specific problem behaviors, IOT aims at helping the teenager restructure his/her life in general, hence, the need to establish a personal mission statement around which daily occupational pursuits can be organized. This is consistent with the pragmatic proposition as advanced by James (1977) that if we want to facilitate meaningful change so that the individual transitions from a maladaptive to an adaptive state of existence, then we have to aim at changing the entire lifestyle rather than specific behaviors piecemeal. Helping the teenager establish a personal mission statement aims at achieving such a lifestyle re-organization which might be the most effective way of addressing the emotional and behavioral challenges of adolescents which according to Roberts et al. often present as multiple problems rather than single discreet issues that may be addressed sequentially one after another.

Cost-Effectiveness of the IOT model as a Guide to Intervention to Assist Adolescents with EBD Transition Successfully to Adulthood

Cost-effectiveness analysis in mental health refers to an attempt to determine the ratio of effectiveness of providing services to the cost of those services (Frank, McGuire, Normand, Goldman, 1999; Haby, Carter, Mihalopoulos, Sanderson, & Vos, 2004; Yates, 1999). Effectiveness is estimated from indicators such as change in the quality of life, decreased rates of relapse and avoidance of illness, accessibility of services, applicability of services, quality of therapeutic interventions, and research evidence supporting clinical efficacy of those interventions. In the present paper, indicators of effectiveness were the teenage participant's change in visualization of the desired future adult self, and occupational performance patterns as evidenced by findings from the pilot study by Ikiugu and Ciaravino (2006).

According to Yates (1999) cost-benefit analysis refers to the measurement of both costs and outcomes and expressing them in monetary terms; however, certain effects cannot be assigned monetary values (National Institute on Drug Abuse [NIDA], 2005). In the present paper, the gain from intervention can be assessed from teenagers' change in visualization of their desired future adult lives and subsequent change in occupational performance behavior and attitudes. The only evidence that the authors have supporting this gain is from the pilot study by Ikiugu and Ciaravino (2006), which was a test-retest investigation with no control group. Also, the sample was small (only 15 participants). It was therefore a level IV study [according to the widely accepted levels of evidence as outlined in the criteria for evidence-based practice (Trombly & Ma, 2002). In that criteria, the strongest evidence (Level I) is considered to be based on a meta-analysis of Randomized Control Trials. Level IV studies consist of a single sample with no control group, measured two or more times over time. Furthermore, the sample size was at the weakest level (Level C, less than 20 persons in the sample)]; therefore, the evidence provided by Ikiugu and Ciaravino's study for effectiveness of intervention using guidelines from the IOT model would be considered inconclusive according to Yates. However, this judgment of inconclusiveness is only from the perspective of quantitative research. When the phenomenological portion of the study was taken into account, there was reason to believe that the intervention was somewhat effective.

Therefore, while Yate's proposed method of calculating the cost of the program described in Ikiugu and Ciaravino's study was used to calculate the cost-effectiveness analysis in this paper, it was acknowledged that there were limitations regarding the confidence with which the effectiveness of the intervention as deduced from that study may be interpreted. Based on the guidelines by Yates, the following were calculated in this paper: the cost of providing services as described in the program by Ikiugu and Ciaravino; the effectiveness of the intervention as deduced from the findings of the study; and the value of intervention as indicated by the number of dollars invested in the program per positive effect realized from the intervention per teenager involved.

The American Heritage Dictionary of the English Language defines cost as "The expenditure of something, such as time or labor, necessary for the attainment of a goal". Cost is estimated from the price of service provision, such as the cost of: hospitalization, services provided directly to the client by a provider, organization and operation of services, and time (Yates, 1999). Cost-effectiveness analysis represents a calculation of the cost of services and dividing it by effectiveness to obtain a cost-effectiveness ratio in terms of cost per unit of input/value per unit output. Cost-Effectiveness analysis can be calculated at both the individual (micro) and system (macro) levels. In the present paper, the focus will be on the individual level.

To calculate the cost, the worksheet provided by Yates (1999, p. 24) was used. All resources used in the process of intervention in the pilot study by Ikiugu and Ciravino (2006) were recorded to ascertain the specific cost of each item of the resources. Included in the list were: time spent by all personnel in ensuring success of the program (including the time invested by two occupational therapists, two Day Treatment Center teachers, two graduate student occupational therapists, and the Day Treatment Center administrator); supplies and equipment needed for assessment of each of the teenagers and for group

activities (these included a variety of crafts supplies, snacks, paper and pencils, and the COPM assessment); cost of therapist transportation between the University and Day Treatment Center [rates used to calculate the cost were derived from the guidelines for reimbursement provided by Combs (2004)]; cost of transportation of the teenagers in the program between the Day Treatment Center and the University; and the overhead costs [cost of space and administration of the program which was calculated based on the guidelines provided by the Regents of the University of California (2003)]. Findings of the cost analysis are shown on Table 1.

Table 1

Cost Analysis of the Program described by Ikiugu and Ciaravino designed to facilitate Successful Transition of Adolescents with EBD into Adulthood using Intervention Guidelines derived from the IOT model

Item	Rate (in US \$ per Unit) X Number of units	Total Unit Cost (in US\$)	Total Program Cost (In US \$)	Cost Per Teenager = Total Program Cost/15 teenagers
Personnel				
Occupational Therapists (2)	100.00 per hour X 81.5 Therapy Hours	8150.40		
Teachers (2)	21.35 per hour X 54 hours	1152.90		
Graduate students (2)	7.00 per hour X 14 hours	98.00		
Facility administrator (1)	70.00 per hour X 30 minutes	35.50	9436.40	629.09
Overhead costs (Facilities and Administrative costs)	9436.40 (direct costs) – 434.95 (Materials) X .52	4680.75	4680.75	312.05
Materials, Supplies, Equipment	Craft and activity supplies Writing tablets and paper Pencils Snacks and beverages COPM Misc. activity materials	225.00 40.00 5.00 100.00 49.95 15.00	434.95	29.00
Transportation	Therapist transportation between the University and Day Treatment Center; Eight 14-mile trips @ 0.375/mile	42.00		
	Participant transportation between the University and Day Treatment Center; Seven 14-mile trips @ 0.66/mile	64.68	106.68	7.11
Total			14658.78	977.25

Explanation of Costs

Therapy time

Therapist 1 spent 7 hours co-leading group sessions and 2 hours, 50 minutes per teenager administering assessments for a total of 49 hours, 30 minutes of his time. Therapist 2 spent 7 hours co-leading group sessions and 2 hours per teenager to administer assessments for a total of 32 hours of her time. Therefore, total time invested by the 2 therapists on the program was $49.5 + 32 = 81.5$ hours.

Teachers' time

Two teachers were needed for control of students during the 7 group sessions (a total of 14 teacher hours) and to supervise the teenagers in completing the DOIs (40 hours of supervision time at 20 minutes with each teenager per day for 4 days). Therefore, the total teacher time devoted to the program was 54 hours.

Administrator time

The Day Treatment Center administrator spent at least 30 minutes organizing his staff to help facilitate the program.

Graduate assistants

Two occupational therapy graduate students assisted the occupational therapists in running group sessions at any one time (Total student time for the 7 group sessions = 14 hours).

Overhead Costs

The overhead costs (direct costs – the cost of materials x 52%) were calculated based on a formula provided by the Regents of the University of California (2003).

Materials and supplies

Crafts materials were used in the group activities. The students wrote their mission statements and performance goals on the writing tablets and paper supplied by the program. They were also supplied with pencils, and at the end of every session, refreshments were served. The COPM assessment instrument was also acquired using the materials and supplies budget.

Transportation

The therapists used their own cars to travel between the University and the Day Treatment Center in the process of running the program. The cost of transportation was based on the reimbursement rates (37.5 cents/mile) suggested in the guidelines by Combs (2004). The teenagers were transported to and from the University in the Day Treatment Center van. Calculation of the cost of transportation (66 cents/mile) was also derived from Combs' guidelines.

Effectiveness Analysis

To determine the positive effects of the intervention program, authors examined the quantitative and qualitative findings from the pilot study by Ikiugu and Ciaravino (2006). The effects of intervention as indicated by the findings of that study are shown in figure 1 below.

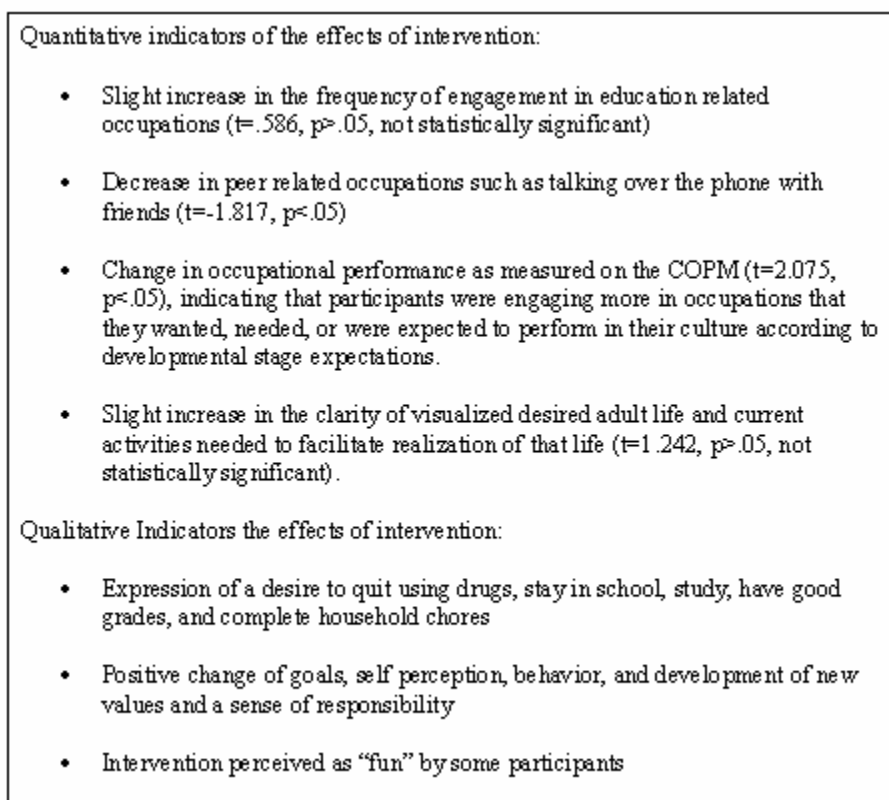


Figure 2. *Positive Effects of Intervention as deduced from the Findings of the Pilot Study by Ikiugu and Ciaravino (2006)*

Cost-Effectiveness Analysis

As can be seen on table 1 and in figure 2, there were about six positive effects of intervention based on IOT guidelines (the 7th effect, “fun”, though positive, does not directly contribute to facilitation of transition of the adolescents into adulthood). As pointed out earlier, it is not possible to convert these effects into monetary values at this time. Therefore, the cost-effectiveness analysis was calculated as a ratio of dollars invested in the program to the number of effects (US \$ 977.25/6 effects = US\$162.88 per positive effect).

Discussion

The above analysis leads to the conclusion that there was at least one positive effect of intervention by Ikiugu and Ciaravino (2006) for every US\$162.88 invested in the program. Of course, due to the limitations of the study in question (sample not randomly selected, no control group, small sample), it cannot be conclusively stated that the observed effects were a result of the intervention. All that can be deduced from the study is that following the intervention, there were some changes. Those changes could have been caused by passage of time, other interventions, changes in family relationships, etc. However, the fact that quantitative indicators of the effects were confirmed by the qualitative, phenomenological findings gives us some confidence that the intervention contributed to these effects (for instance, even though the increase in the frequency of the teenagers’ participation in education-related occupations was

not statistically significant, the change was supported by the qualitative finding that some of the teenagers expressed a desire to quit using drugs, stay in school, and study hard and maintain good grades as a result of their experiences in the program). Similarly, the decrease in peer-related occupations (which was statistically significant) was supported by the qualitative finding that some of the teenagers expressed less valuing of friends following the intervention (finding not listed among the effects in figure 1).

The question, however, is whether US\$162.88 is good value for a single effect which cannot be converted into a monetary value. There is no way of answering this question with certainty, until a longitudinal study is conducted that would help the investigators track the effects of the intervention over time. Such a study would help determine whether the observed effects: 1) remain stable over time, and 2) translate into monetary benefits in future. However, there are indications in the literature that the observed effects have a good chance of translating into monetary cost savings to the society in future. For instance, if a teenager with EBD sustains enhanced frequency of engagement in education-related occupations as a result of the intervention, he/she is likely to be more successful in school, and become gainfully employed as an adult rather than leading a life of crime which would be costly for society. Researchers have demonstrated that such an effect leads to US\$19314.00 per year per individual in savings in crime alone (NIDA, 2005). In other words, by investing 162.88 dollars today, we could be saving thousands of dollars in the future.

In addition, the observed effect that the teenagers changed their occupational performance as measured on the COPM was very important. The COPM is used to help the client identify occupations which he/she wants, needs, or is required to perform, that are culturally and age appropriate (Law, Baptiste, Carswell, etc., 2000). The client then rates the perceived importance of being able to perform each of the occupations, perceived performance, and satisfaction with performance. Therefore, increase in performance scores as measured on the instrument meant that the teenagers were performing more of the occupations that they wanted, needed, or were expected by society to perform. This is a strong indication that these teenagers were handling their developmental tasks more successfully as a result of intervention, which means a greater likelihood of more successful transition into adulthood.

Also, the observed decrease in peer related occupations may be seen as a positive indicator of a greater likelihood of successful transition. As Ikiugu and Ciaravino pointed out in their study, adolescents with EBD are likely to have a network of peers who encourage engagement in occupations that are contrary to successful transition into adulthood, such as engagement in drug use, violence, etc. Therefore, disinvesting their energy from such relationships gives them a chance to re-organize their lives and establish new, more positive relationships. Finally, the increase in the clarity of the desired future life and actions needed in the present in order to achieve that future, though not statistically significant, was supported by the qualitative findings. This effect was also important because it indicated that the teenagers in question were thinking more about their future, and beginning to develop a plan of how to work constructively towards that future. Again this increased the likelihood of them being successful in their transition into adulthood. Therefore, the above discussion suggests that the observed effects, although they cannot be converted into monetary values, are important because they are likely to translate into monetary benefits in the future. Whether or not this translation becomes a reality will become clearer with more research.

However, as observed earlier, IOT has strong similarities with many CBT approaches to therapy. Since there is strong evidence indicating that CBT-oriented therapies are effective interventions when working with teenagers (Roberts, 2003) it follows that we can take the effects demonstrated by Ikiugu and Ciaravino as fairly good indicators of the success of the intervention in assisting the teenagers involved transition into adulthood. Successful transition on the other hand would mean substantial monetary benefits to society. Therefore, the cost of US\$977.25 per teenager or US\$162.88 per positive effect per teenager may not be a bad investment.

Conclusion

In this paper, the cost-effectiveness of Instrumentalism in Occupational Therapy (IOT) as a source of guidelines to provide occupational therapy intervention to assist adolescents with Emotional and Behavioral Disorders (EBD) transition successfully into adulthood has been examined. It has been noted that the IOT, which is a conceptual model of practice in occupational therapy based on the philosophy of pragmatism, can be an effective model to guide therapy with teenagers because a therapist using the model aims at helping the teenager restructure his/her life in general so that he/she is more adaptive in meeting life challenges rather than focusing on specific problem behaviors. In addition, it has been demonstrated that the IOT model has some similarities with some of the models used by psychotherapists to address problems of adolescence. Such models that are conceptually similar to the IOT include multisystemic therapy (MST) and Functional Family Therapy (FFT). Besides, it was observed that the IOT has many similarities with Cognitive-Behavioral Therapy (CBT) approaches to therapy that have been found to be very effective in addressing the problems of adolescence. However, IOT is unique in its occupation-based approach to intervention that aims at restructuring the teenager's life.

Finally, the cost-effectiveness analysis was completed based on the program conducted by Ikiugu and Ciaravino (2006). The analysis revealed that it costs US\$162.88 per positive effect realized from the intervention using the model's guidelines per teenager. Although there is no way of knowing at the present time how these effects may translate into monetary benefits, it was argued that there is good reason to believe that they will translate into such benefits in future and therefore investing that money in the program is justified. It is recommended that further longitudinal research, involving larger samples of teenagers, with randomized control trials, be conducted to ascertain that the effects observed by Ikiugu and Ciaravino are the result of the intervention and not other variables, and that these effects endure over time and translate into cost-savings by society.

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Appendix A

Example of a Completed AIIIOT: Pete (not his real name)

Assessment and Intervention Instrument for Instrumentalism in Occupational Therapy (AIIIOT)

When using this instrument, the therapist should find a quiet place where the client can concentrate and respond in detail to all items without interruption. The client should be given as much time as necessary to respond to all items in this instrument exhaustively. The instrument consists of four sections. In section I, a personal mission statement is created. This provides a purpose towards which the client strives. In section II, occupations in whose regular engagement would lead to achievement of the stated mission in life are identified. In section III, the client's self perception of engagement in identified occupations is rated on four scales: frequency, adequacy, satisfaction, and belief in ability to engage in the occupations. In section IV, the self rating scores are added together to give engagement indexes on the four scales.

I. Personal Mission Statement

The therapist should read the following directions loudly to guide the client in completing this exercise (see Covey, 1990).

Imagine that one day, you come home unexpectedly. You find a large group of people meeting in the house. As you come in, you find that for some reason, they are all talking about you. You decide to listen to what they are saying. No one knows you are there. Write down in detail what you would like to hear each of the following say about you: (a) family member (father, mother, spouse, son/daughter, sister/brother, cousin, any other family member that you feel close to). (b) Friends (one or two close friends). (c) work/professional colleague/associate. (d) a member of the

church or some other community organization to which you are affiliated. Now, go over what you have written and take a few moments to think about what you imagine each of those people saying about you. These statements represent the kind of person you would like to be and that you can be. Summarize the statements in a few sentences, stating what you consider to be your personal mission statement. This mission statement will provide the direction towards which you will strive from now on. The statement should consist of four components corresponding to the four areas of the overheard conversations: family, friends, work/professional life, and engagement in Church/community organization(s).

II. Identification of Occupations

For each of the four areas, identify two occupations in whose regular engagement will lead to achievement of the stated mission in life.

A. Family

1. Heed more to mom's instructions

2. _____

B. Social Life (Friendship)

1. Listening to friends' problems more

2. Asking other people what I can do to help them

C. Work/Professional Life

1. Obey all school rules

2. Attend all classes and pay attention

3. Finding information about a career I want to pursue

D. Affiliation to Church/Community Organization(s)

1. _____

2. _____

III. Evaluation

For each of the identified occupations, rate yourself on a scale from one (1) to four (4) regarding: (a) frequency, (b) adequacy, (c) satisfaction, and (d) belief about your ability to engage in the occupation.

Descriptors

Frequency

1 = does not engage in the occupation; 2 = rarely engages in the occupation; 3 = regularly engages in the occupation; 4 = frequently engages in the occupation as necessary.

Adequacy

1 = I am not able to engage in the occupation; 2 = engages in the occupation with difficulty and the outcome is inadequate; 3 = engages in the occupation with difficulty but the outcome is good when able to complete it; 4 = engages in the occupation, is able to complete it, and the outcome is always adequate.

Satisfaction

1 = I am disappointed with my engagement in the occupation; 2 = I am somewhat satisfied with my engagement in the occupation; 3 = I am satisfied with my engagement in the occupation but would like to improve; 4 = I am happy with my engagement in the occupation as it is.

Belief

1 = I do not believe that I am capable of engaging in this occupation; 2 = I believe that I can engage in the occupation with much help; 3 = I believe I can engage in the occupation with a little help; 4 = I believe I can engage in the occupation independently with desired frequency and adequacy.

	Frequency 1 2 3 4	Adequacy 1 2 3 4	Satisfaction 1 2 3 4	Belief 1 2 3 4
A. Family				
1. Heeding mom's instructions	___ _ _ _ X	___ _ _ _ X	___ _ _ _ X	___ _ _ _ X
2.	___ _ _ _ _	___ _ _ _ _	___ _ _ _ _	___ _ _ _ _
B. Social Life (Friendship)				
1. Listening to friends	___ _ _ _ X	___ _ _ _ X	___ _ _ _ X	___ _ _ _ X
2. Offering to help others	___ _ _ X _	___ _ _ _ X	___ _ X _ _	___ _ X _ _
C. Work/Professional Life				
1. Obeying school rules	___ _ _ _ X	___ _ _ X _	___ _ _ X _	___ _ _ _ X
2. Attending classes	___ _ _ _ X	___ _ _ _ X	___ _ _ _ X	___ _ _ _ X
3. Finding career information	___ _ _ _ X	___ _ _ X _	___ _ _ _ X	___ _ _ X _
D. Affiliation to Church/Community Organization(s)				
1. _____	___ _ _ _ _	___ _ _ _ _	___ _ _ _ _	___ _ _ _ _
2. _____	___ _ _ _ _	___ _ _ _ _	___ _ _ _ _	___ _ _ _ _
Scores (x11, x12, x13, x14)	___ _ 23 _ Frequency	___ _ 22 _ Adequacy	___ _ 21 _ Satisfaction	___ _ 21 _ Belief

Scores (x21, x22, x23
x24) _____

To obtain aggregate scores for each of the four scales, add together the ratings for each column and place the total at the bottom of the column. These scores are denoted x11, x12, x13, and x14 for frequency, adequacy, satisfaction, and belief respectively.

To obtain scores during re-assessment, the client should rate him/herself on the four scales again and the scores aggregated as before. Denote the re-assessment scores x21, x22, x23, and x24 for the four scales respectively. Note that if the client changes the occupations that he/she perceives to lead to achievement of personal mission in life, use a new AIIIOT form to rate the client on the four scales. The sum of self ratings, however, should be denoted x21, x22, x23, and x24 respectively in either case. Progress in therapy is indicated by; x21-x11, x22-x12, x23-x13, and x24-x14 respectively.

Comments:

Note: Pete's mission statement and goals were written on a separate sheet of paper.

Instrument adapted from, "Instrumentalism in occupational therapy: Guidelines for practice", by M.N. Ikiugu, *International Journal of Psychosocial Rehabilitation*, 8, pp. 176-177. Copyright, 2004 by the Hampstead Psychological Associates, Ltd.

Appendix B

Sample Completed Daily Occupation Inventory (Pete's one-day Inventory)

Daily Occupational Inventory (DOI)

Please enter each occupation in which you participate next to the indicated time. For example:

6:00 am – Woke up, got out of bed, exercised, meditated, had breakfast.

7:00 am – Drove to work, listened to the news over the radio.

8:00 am – Got into the office, checked voicemail, checked email messages, answered emails, made a list of activities for the day...

Make sure to indicate the date (MM/DD/YY) for which you are logging in occupations. Bring the completed inventory with you when you come for therapy.

Client's Name: Pete _____

Day # 1

Date: 11/01/2003

6:00 am – Woke up

7:00 am – Showered, got dressed

8:00 am – Boarded the school-bus

9:00 am – Got to school, attended therapy session

10:00 am – Did school work

11:00 am – Did school work, ate lunch

12:00 am – Did school work

1:00 pm – Did school work

2:00 pm – Attended therapy, went to the Day Treatment Center, Played cards

3:00 pm – Played cards, started Day Treatment Center activities

4:00 pm – Participated in academic activities

5:00 pm – Attended a group session, ate supper

6:00 pm – Did cleaning, Day Treatment session ended

7:00 pm – Got home, talked on the phone

8:00 pm – Talked on the phone

9:00 pm – Showered

10:00 pm – Talked on the phone

11:00 pm – Went to bed

12:00 pm – Asleep

Instrument derived from, “Psychosocial conceptual practice models in occupational therapy – Lab Manual”, by M.N. Ikiugu, p. 412. Copyright, 2007 by Elsevier/Mosby.

Appendix C Example of a Group Protocol

Example of a Group Protocol Used to Structure Intervention in one of the Sessions

Title of the Group

How to be a Responsible Young Adult

Purpose of the Group

To facilitate participant awareness of what it means to be a responsible adult and the social benefits of being viewed as a responsible individual.

Description of the Group

The activity that will be completed today is a craft to make what is known as a “Dream-Catcher”. This is a native American activity symbolizing the process of keeping in one’s soul the energy, thoughts, and desires that are affirming (in this case thoughts about one as a responsible person), and keeps out thoughts, energies, desires, etc. that are not affirming, e.g., the belief that one is inherently an

irresponsible trouble maker. The activity also doubles as a relevant recreational occupation that you can do regularly for fun.

Supplies and Equipment

1. Feathers
2. Chenille
3. Beads
4. Knitting Thread

Goals of the Group

By the end of the group session, each group member will:

1. Complete making a Dream-Catcher.
2. Verbalize awareness of temptations that make him/her succumb to irresponsible behaviors and how to overcome them.
3. Verbalize and demonstrate awareness of self-affirming behavior and commitment to such behavior.

Questions to Guide Discussion

Processing

1. How did you feel about this activity?
2. How do you feel about how the activity was introduced to you and how you were assisted to complete it successfully?
3. How do you feel about the idea of the Dream-Catcher?

Generalizing

As a result of engaging in this activity:

1. What have you learned about things that tempt you to engage in irresponsible behavior?
2. What have you learned about your ability to overcome temptations and do the right thing?
3. What have you learned about yourself as a person?

Application

1. Share with the group how you will use the knowledge that you gained from today's activity in your every day life, in order to make sure that you achieve your life goals.